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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,438	03/30/2004	Youssef A. Ghoneim	GP-303819	3370
7590 01/17/2006			EXAMINER	
KATHRYN A MARRA General Motors Corporation Legal Staff, Mail Code 482-C23-B21 P.O. Box 300 Detroit, MI 48265-3000			ZANELLI, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3661	

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/812,438	<b>Applicant(s)</b> GHONEIM, YOUSSEF A.	
	<b>Examiner</b> Michael J. Zanelli	<b>Art Unit</b> 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-12, 25 and 26 is/are rejected.
- 7) ☒ Claim(s) 5-7, 13-24 and 27-31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This is responsive to the amendment filed 11/14/05. Claims 1-31 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 8, 25 and 26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Hac et al. (6,035,251).

A. As per claims 1, 8 and 25, Hac discloses a method and system for controlling a vehicle (Fig. 1) which includes providing/sensing a plurality of dynamic state inputs to a controller adapted to execute a plurality of control loops (col. 1, lines 29-31; col. 2, lines 35-49); calculating an estimated steering behavior (Fig. 8; col. 3, lines 13-21; see also claim 12); storing information related to the dynamic state inputs and the steering behavior whereby the operations performed by the computer (col. 4, lines 31-35) inherently require at least temporary storage of values and col. 5, lines 21-27 disclose operations using values from previous control loop operations; and controlling the vehicle in response to the steering behavior (Figs. 4, 8).

B. As per claim 26, as above wherein the dynamic state inputs may include speed, yaw rate, steering angle and lateral acceleration (col. 2, lines 38-49).

4. Claims 1, 8 and 25-26 stand rejected under 35 U.S.C. 102(b) as being anticipated by Nishizaki et al. (6,415,215).

A. As per claims 1, 8 and 25, Nishizaki discloses a method and system for controlling a vehicle (Fig. 1) which includes providing/sensing a plurality of dynamic state inputs (13-15b) to a controller (20) adapted to execute a plurality of control loops

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(Fig. 2; col. 17, lines 50-56); calculating an estimated steering behavior (col. 18, lines 1-10); storing information related to the dynamic state inputs and the steering behavior whereby the operations performed by the controller (20) inherently require at least temporary storage of values; and controlling the vehicle in response to the steering behavior (col. 25, lines 24-31).

B. As per claim 26, as above wherein the dynamic state inputs may include speed, yaw rate, steering angle and lateral acceleration (cols. 11-12).

5. Claims 1-4, 8-12 and 25 stand rejected under 35 U.S.C. 102(e) as being anticipated by Adachi (6,615,124).

A. As per claims 1, 8 and 25, Adachi discloses a method and system for controlling a vehicle (Fig. 1) which includes providing/sensing a plurality of dynamic state inputs (1-1, 1-2, 1-3) to a controller (3-1) adapted to execute a plurality of control loops (Fig. 2); calculating an estimated steering behavior (col. 4, line 36 to col. 5, line 3); storing information related to the dynamic state inputs and the steering behavior whereby the operations performed by the controller (3-1) inherently require at least temporary storage of values (col. 4, lines 15-19); and controlling the vehicle in response to the steering behavior (Fig. 2).

B. As per claims 2-4 and 9-12, as above whereby the estimation of the steering behavior for the control loop includes updating a prior steering behavior indicator using a correction term and weighting factors to provide a current steering behavior estimation (see Fig. 2; col. 4, line 64 to col. 5, line 3; col. 5, line 37 to col. 6, line 67; col. 7, line 45+; Tables 1-5).

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6. Claims 1, 8, 25 and 26 stand rejected under 35 U.S.C. 102(e) as being anticipated by Kim (6,842,683).

A. As per claims 1, 8 and 25, Kim discloses a method and system for controlling a vehicle (Fig. 1) which includes providing/sensing a plurality of dynamic state inputs (10) to a controller (20) adapted to execute a plurality of control loops (col. 1, lines 7-12); calculating an estimated steering behavior (26); storing information related to the dynamic state inputs and the steering behavior whereby the operations performed by the controller (20) inherently require at least temporary storage of values; and controlling the vehicle in response to the steering behavior (Fig. 1; col. 3, lines 31-42).

B. As per claim 26, as above wherein the dynamic state inputs may include speed, yaw rate, steering angle and lateral acceleration (Fig. 1:10).

7. Claims 5-7, 13-24 and 27-31 are distinguishable over the prior art.

8. **REMARKS**

A. Applicant's arguments filed 11/14/05 have been fully considered but they are not persuasive.

B. Applicant states that the "steering behavior indicator" is a well known term in the art (i.e., "conventionally" known). However, a text search of US patents and publications, as well as foreign databases, resulted in zero hits. Thus it is unclear as to how this term in and of itself represents a "conventional" term not disclosed in the cited prior art. Given each words common meaning and the broadest reasonable interpretation, the limitation "steering behavior indicator" would include determinations of understeer/oversteer based on measured steering angle, as exemplified in at least Hac

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(*supra*). This interpretation is consistent with paragraph [0004] which uses the terms understeer/oversteer relative to a steering “indicator”. If applicant intends the term “steering behavior indicator” to represent a particular mathematical variable, it must be clearly defined in the claim to distinguish over the prior art. Applicant can be his own lexicographer, but must clearly set forth what the term means and/or represents such that one of ordinary skill in the art can distinguish its meaning from its commonly accepted meaning.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

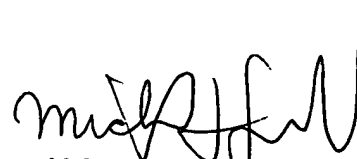
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969. The examiner can normally be reached on Monday-Thursday 8:30 AM - 3:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/mjz



MICHAEL J. ZANELLI  
PRIMARY EXAMINER